

# Claims

- [c1] 1. A non-volatile memory device with wireless control function, comprising:
- a main part, comprising:
    - a connection port, electrically coupled to a host, wherein the host provides a data and a host power to the non-volatile memory device with wireless control function via an external bus connected to the connection port;
    - a memory system, caching a data received by the connection port, and further writing the cached data to a non-volatile memory device; and
    - a remote control signal reception module; and
    - a remote control part, comprising:
      - a function-key module, producing a key signal while being pressed;
      - a controller, receiving the key signal to produce a corresponding control signal;
      - a remote control signal emission module, emitting a corresponding remote control signal according to the control signal; and
      - a first power storage unit, storing power for the remote control part operations;
  - wherein, after receiving the remote control signal, the

remote control signal reception module produces a corresponding host control signal, and the host control signal is subsequently transmitted back to the host via the connection port to control the host operations.

- [c2] 2. The non-volatile memory device with wireless control function of claim 1, wherein the connection port comprising an interface connection device that is suitable for connecting to one of the Universal Serial Bus (USB) interface, the 1394 interface, the RS232 interface, the parallel transmission interface, the PCMCIA interface, the CF interface, the SD interface, the MMC interface and the Memory Stick interface.
- [c3] 3. The non-volatile memory device with wireless control function of claim 1, wherein the first power storage unit further comprises a voltage feedback module, the voltage feedback module is used to detect whether the host power exists or not, so that the first power storage unit can provide the power to operate the remote control part when the host power is lost.
- [c4] 4. The non-volatile memory device with wireless control function of claim 1, wherein the remote control part further comprises a charging module, the charging module is used to receive the host power and charge the first power storage unit with the host power.

- [c5] 5. The non-volatile memory device with wireless control function of claim 4, wherein the charging module further comprises a protection module, wherein the protection module is used to protect the first power storage unit from the damage caused by the high voltage.
- [c6] 6. The non-volatile memory device with wireless control function of claim 1, further comprising a voltage regulator, wherein the voltage regulator is used to adjust the host power to a voltage that is suitable for the non-volatile memory device with wireless control function.
- [c7] 7. The non-volatile memory device with wireless control function of claim 1, wherein the first power storage unit is electrically coupled to the connection port so as to receive the host power.
- [c8] 8. The non-volatile memory device with wireless control function of claim 1, wherein the first power storage unit comprises a non-rechargeable battery.
- [c9] 9. The non-volatile memory device with wireless control function of claim 2, wherein the first power storage unit comprises a non-rechargeable battery.
- [c10] 10. The non-volatile memory device with wireless control function of claim 3, wherein the first power storage

unit comprises a non-rechargeable battery.

- [c11] 11. The non-volatile memory device with wireless control function of claim 4, wherein the first power storage unit comprises a non-rechargeable battery.
- [c12] 12. The non-volatile memory device with wireless control function of claim 5, wherein the first power storage unit comprises a non-rechargeable battery.
- [c13] 13. The non-volatile memory device with wireless control function of claim 6, wherein the first power storage unit comprises a non-rechargeable battery.
- [c14] 14. The non-volatile memory device with wireless control function of claim 7, wherein the first power storage unit comprises a non-rechargeable battery.
- [c15] 15. The non-volatile memory device with wireless control function of claim 1, wherein the first power storage unit comprises a rechargeable battery.
- [c16] 16. The non-volatile memory device with wireless control function of claim 2, wherein the first power storage unit comprises a rechargeable battery.
- [c17] 17. The non-volatile memory device with wireless control function of claim 3, wherein the first power storage unit comprises a rechargeable battery.

- [c18] 18. The non-volatile memory device with wireless control function of claim 4, wherein the first power storage unit comprises a rechargeable battery.
- [c19] 19. The non-volatile memory device with wireless control function of claim 5, wherein the first power storage unit comprises a rechargeable battery.
- [c20] 20. The non-volatile memory device with wireless control function of claim 6, wherein the first power storage unit comprises a rechargeable battery.
- [c21] 21. The non-volatile memory device with wireless control function of claim 7, wherein the first power storage unit comprises a rechargeable battery.
- [c22] 22. The non-volatile memory device with wireless control function of claim 1, wherein the main part further comprises a second power storage unit, the second power storage unit is used to store a power and provide the power to the main part when the host power is lost.
- [c23] 23. The non-volatile memory device with wireless control function of claim 22, wherein the second power storage unit comprises a non-rechargeable battery.
- [c24] 24. The non-volatile memory device with wireless control function of claim 22, wherein the second power

storage unit comprises a rechargeable battery.

[c25] 25. The non-volatile memory device with wireless control function of claim 22, wherein the second power storage unit is electrically coupled to the host power.

[c26] 26. The non-volatile memory device with wireless control function of claim 25, wherein the second power storage unit comprises a non-rechargeable battery.

[c27] 27. The non-volatile memory device with wireless control function of claim 25, wherein the second power storage unit comprises a rechargeable battery.